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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,197	10/02/2003	Robert Wesley Bossemeyer JR.	8285/645	9674

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EXAMINER
TSEGAYE, SABA

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

Office Action Summary	**Application No.** 10/679,197	**Applicant(s)** BOSSEMEYER ET AL.
	Examiner Saba Tsegaye	**Art Unit** 2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *10/02/03*.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 10/02/03 (A01-A105) fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Objections

2. Claim 42 is objected to because of the following informalities: the limitation "a second digital subscriber line..." is written twice in lines 8 and 12. In line 16, the phrase "the Internet" lacks antecedence basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 12 and 13, are rejected under 35 U.S.C. 102(e) as being anticipated by Liu et al. (US 6,349,096).

Regarding claim 12, Liu discloses, in Fig. 2, a wide area communications network, comprising:

a CPE/ISP 230 (claimed a first subscriber location and a first network interface device attached to the first subscriber location); a DSL 225 (claimed a first DSL in communication with the first subscriber location via the first network interface device); ITE DSLAM 240 (claimed a first DSLAM connected to the first DSL); a CPE/ISP 231 (claimed a second subscriber location and a second network interface device); a DSL 225' (claimed a second DSL in communication with the second subscriber location via the second network interface device); an ITE DSLAM 240' (claimed a second digital subscriber line access multiplexer connected to the second DSL); and the first (CPE 230) and second (CPE 231) subscriber locations in communication via at least one derived digital telephone voice channel carried over the first (225) and second (225') digital subscriber lines and by a public switched telephone network (digital PSTN) connecting the first digital subscriber line access multiplexer (240) to the second digital subscriber line access multiplexer (240), wherein a subscriber unit at the first subscriber location is configured to select one of a plurality of derived digital voice channels for a voice communication to the second subscriber location (column 7, lines 18-32; column 8, lines 39-50).

Regarding claim 13, Liu discloses the system further including a first ISP (230) connected to an ATM network (260) and a second ISP connected (231) to the ATM network (260), wherein the ATM network (260) is in communication with both the first digital subscriber line access multiplexer (240) and the second digital subscriber line access multiplexer (240).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 14-19 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. in view of Fosmark et al. (US 6,084,881).

Liu discloses all the claim limitations as stated above. Further, Liu suggests that the invention provides a smooth migration for all current modem, ISDN, and LAN users (column 5, lines 56-57).

However, Liu does not specifically disclose the following: a) subscriber location includes a local area network (as in claims 14 and 16); and b) the local area network includes a facsimile machine and connects to the subscriber unit, which is capable of receiving and sending a digitized facsimile transmission (as in claims 15, and 21-27).

Regarding claims 14 and 16, Fosmark discloses, in Fig. 3, that an access node 40 associated with a network access provider is connected across an xDSL link 44 to an xDSL interface 42 associated with a customer premises. The xDSL interface 42 is coupled to a BUS or Network (LAN) for communicating with other components of customer premises equipment. Further, Fosmark teaches that the xDSL termination units can be connected to the telephone lines.

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a local area network, such as that suggested by Fosmark, in the CPE of Liu in order to have a system that links together different office equipment and forms a network within an office or a building.

Regarding claims 15 and 21-27, Fosmark teaches that the CPE can comprise a personal computer, computer workstation or other computing device with an xDSL interface (column 3, lines 24-30).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to add a facsimile machine and connects to the subscriber unit, such as that suggested by Fosmark, in the CPE of Liu in order to meet specific needs.

Regarding claims 17-19, Liu discloses, in Fig. 3, a PCM bank 242 that convert analog telephone signal into a digital telephone; and a DSL Bank/Dialing Logic circuit 243 that converts DSL signals to digital data signals that can be routed to the various data paths. This circuit provides the necessary processing during call setup and tear down (dialing up the destinations current modem use via either the PSTN or WAN, or setting up a virtual circuit via the WAN).

7. Claims 20, 28-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. in view of Fosmark et al. (US 6,084,881) and Klok et al. (5,930,250).

Regarding claims 20, 28, 33-36 and 39-41, Liu discloses, in Figs. 2 and 3, a wide area communications network, comprising: a CPE/ISP 230 (claimed a first subscriber location and a first network interface device attached to the first subscriber location); a DSL 225 (claimed a first DSL in communication with the first subscriber location via the first network interface device); ITE DSLAM 240 (claimed a first DSLAM connected to the first DSL, and separating a first DSL channel from a first telephony channel); digital PSTN (claimed a PSTN connected to the first telephony channel); a WAN 260 (claimed an ATM network connected to the first DSL channel) ITE DSLAM 240 (claimed a second DSLAM connected to the ATM network by a second DSL channel and connected to the PSTN by a second telephony channel); a DSL 225' (claimed a second DSL connected to the second DSLAM); a CPE/ISP 231 (claimed a second subscriber location having a second network interface device connected to the second DSL); and a first hybrid circuit communicating a telephone call from a first telephone in communication with a second telephone in the second telephone system, wherein a first hybrid circuit has a first portion comprising a ritual circuit and a second portion comprising a switched circuit (column 7, lines 41-45; Abstract).

However, Liu does not specifically disclose that the subscriber location includes a local area network (as in claims 28, 33, 34, 40 and 41).

Fosmark discloses, in Fig. 3, that an access node 40 associated with a network access provider is connected across an xDSL link 44 to an xDSL interface 42 associated with a customer premises. The xDSL interface 42 is coupled to a BUS or Network (LAN) for communicating with other components of customer premises equipment. Further, Fosmark teaches that the xDSL termination units can be connected to the telephone lines.

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add a local area network, such as that suggested by Fosmark, in the CPE of Liu in order to have a system that links together different office equipment and forms a network within an office or a building.

Further, Liu and Fosmark do not expressly disclose an IWU that is connected to the first DSLAM and to the public switched telephone network (as in claims 20, 28, 35, 36 and 39). However, IWU is a well-known device for bridging or interfacing one communication format with another.

Klok disclose, in Fig. 1, a device 108 for receiving and routing data packets from a non-packet switching network PSTN.

It would have been obvious to one ordinary skill in the art at the time of the invention was made to add an IWU, such as that suggested by Klok, in the communication system of Liu and Fosmark in order to mediate communication between different protocols within different system and to provide conversion between a packet data format and a circuit switch data format.

Regarding claims 29-32, 37 and 38, Liu discloses all the claim limitations as stated above except for the local area network includes a facsimile machine and connects to the subscriber unit, which is capable of receiving and sending a digitized facsimile transmission.

Fosmark teaches that the CPE can comprise a personal computer, computer workstation or other computing device with an xDSL interface (column 3, lines 24-30).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a facsimile machine and connects to the subscriber unit, such as that suggested by Fosmark, in the CPE of Liu in order to meet specific needs.

8. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (US 6,349,096) in view of Greene et al. (US 6,212,177).

Liu discloses, in Fig. 2, a wide area communications network, comprising:

a CPE/ISP 230 (claimed a first subscriber location and a first network interface device attached to the first subscriber location); a DSL 225 (claimed a first DSL in communication with the first subscriber location via the first network interface device); ITE DSLAM 240 (claimed a first DSLAM connected to the first DSL); a CPE/ISP 231 (claimed a second subscriber location and a second network interface device); a DSL 225' (claimed a second DSL in communication with the second subscriber location via the second network interface device); and an ITE DSLAM 240' (claimed a second digital subscriber line access multiplexer connected to the second DSL).

Further, Liu discloses that users can decide the rate and ask for connection via either the current digital PSTN packet-based WAN interconnection, or virtual permanent DCS connection.

However, Liu does not expressly disclose the Internet is configured for voice communication accessibility via the derived digital telephone voice channel.

Greene teaches that Internet can be used to provide a voice channel so that the Internet provides both the data channel and the voice channel (column 2, lines 58-61).

It would have been obvious to one ordinary skill in the art at the time of the invention was made to use Internet for voice communication, as taught by Greene, in the packet-based WAN of Liu in order to lower the overall cost of transmissions. One of ordinary skill in the art would have been motivated to do this because it provides a flexible and efficient access and setup process for permitting DSL users to configure and control an end-to-end connection path via either the digital PSTN or WAN.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith (US 6,643,253) discloses a method and apparatus for providing virtual facility communication service.

Allen, Jr. et al. (US 6,389,011) discloses an ATM-based distributed virtual tandem switching system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
September 13, 2004

JOHN PEZZLO
PRIMARY EXAMINER